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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,316	12/17/2004	Takashi Tanaka	P26024	6727
7055 7590 04/25/2007 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER BANGACHON, WILLIAM L	
			ART UNIT	PAPER NUMBER
			2612	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		04/25/2007	ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/25/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

# Office Action Summary

Application No.

10/517,316

Applicant(s)

TANAKA ET AL.

Examiner

William L. Bangachon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Examiner's comment.

## DETAILED ACTION

### *Remarks*

1. In response to the application filed 12/17/2004, the application has been examined. The Examiner has considered the presentation of claims in view of the disclosure and the present state of the prior art. It is the Examiner's position that claims 1-13 are unpatentable for the reasons set forth in this Office action:

### *Claim Objections*

2. Claims 2 and 3 are objected to because of the following informalities:

Claims 2 and 3 recites the phrase '**the following rank**' in pages 3 and 4. There is insufficient antecedent basis for this limitation in the claims. It is unclear what 'rank' the read range is supposed to be shifted to (i.e. rank below or above the current read range).

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 4 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 4 and 9, the phrase "i.e." renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,486,769 {hereinafter 'McLean'}.

With regards to claim 1, McLean teaches of a method for multi-reading a plurality of checktag ID's (i.e. Ids) {see McLean, column 4, lines 22-25, lines 48-55}, wherein a base station 120 (i.e. interrogator) and multiple checktags (i.e. transponders) repeat queries and responses there-between in order that the interrogator discriminates unique ID given to each one of the checktags {see McLean, column 4, lines 3-21} and wherein said base station 120 when querying specifies a read zone and no-read zone (considered as functionally equivalent to the claimed "read range of Ids") shown in Figure 1 and permits a response from only the transponders whose IDs are within said read zone {see McLean, column 4, lines 26-45}.

9. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,486,769 {McLean}.

In claims 2 and 3, McLean states, "if the base station 120 does not receive a response from checktag A 160, the base station 120 adjusts the strength of the RF signal 130 to thereby increase the range of the signal sent by the base station 120. The base station 120 continues to adjust the strength of the RF signal 130 until it receives a response from checktag A 160. If the base station 120 receives a reply from checktag B 170, the base station 120 lowers the strength of the RF signal 130, thereby decreasing the range of the RF signal 130. The base station 120 continues to lower the strength of the RF signal 130 until no return signal is received from checktag B 170. In

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such a manner, the RFID adjustment system 100 automatically adjusts the parameters of its broadcast range such that tags in the read zone 180 are queried, but tags located in the no-read zone 190 are not queried" {see McLean, column 4, lines 29-40+}. Although McLean does not disclose 'expanding the size of the read range d twice', it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to include, expanding the read range of McLean to twice the distance of the current read range if the checktag A 160 is positioned at twice the distance of the current read range because the strength of the RF signal 130 is adjusted unit it receives a response from checktag A 160.

10. Claims 1-13 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,072,801 {hereinafter 'Wood, Jr. et al'}.

In claim 1, Wood et al teach of a method of identifying a plurality of wireless identification devices/RFID (i.e. multi-reading a plurality of IDs), wherein an interrogator (26) and multiple RFID's (12) (i.e. transponders), shown in Figure 1, repeat queries and responses there-between in order that the interrogator (26) discriminates unique ID given to each one of the RFID's {see Wood et al, column 2, lines 57-59; column 4, lines 4-29+}; and

wherein said interrogator when querying specifies a read range of IDs and permits a response from only the transponders whose IDs are within said read range {see Wood et al, paragraph-bridging columns 5 and 6}.

With regards to claim 2, Wood et al disclose, said RFID's (12) when responding return their Ids {see Wood et al, column 5, lines 12-25}, comprising the steps of:

1) when there is a plurality of responses to the query of said interrogator (26), with AMASK=0001 or 0011, the next level of the tree is recursively traversed wherein the size of the read range is reduced by half in the subsequent query {see Wood et al, column 3, lines 1-3; column 8, lines 63-67};

2) in an example where there are two RFID's present in the read range of the interrogator, and when there is a single response to the query of said interrogator, reading out ID of the transponder which responded as well as shifting said read range to the following rank in the subsequent query {see Wood et al, column 7, lines 6-22}; and further when there is a single response or no response to the previous query, de-recursion takes place wherein the size of said read range d is expanded twice {see Wood et al, column 7, lines 23-39}; and

3) when there is no response to the query of said interrogator, shifting said read range to the next level of the tree (considered as functionally equivalent to the claimed "following rank in the subsequent query"); and further when there is a single response or no response to the previous query, de-recursion takes place, expanding the size of said read range d twice {see Wood et al, column 7, lines 23-39};

whereby the above mentioned steps are repeated until searching of all the read ranges in which IDs to be read may exist is completed, as shown in the Arbitration routine under column 8, lines 1-13.

Note that the above steps are met by the tree search method of Wood et al whether or not a collision occurs. Also see column 8, lines 42-67.

The limitations of claim 3 have already been addressed in the rejection of claim 2 and therefore rejected for the same reasons.

In claims 4 and 9, the size of said read range in Wood et al is inherently defined by  $2^e$ . i.e. if  $e=4$  bits, equivalent to the integer 1111, which has 16 states (i.e.  $8+4+2+1+0$ ), then the read range is 16. See Wood et al, column 6, lines 30-35.

In claims 5 and 10, it is inherent that the reduction value ( $d/2$ ) of the size of said read range  $d$  in Wood et al is calculated by exponential function,  $e=e-1$ . In this case,  $e=3$  bits, equivalent to the integer 0111, which has 8 states (i.e.  $0+4+2+1+0$ ), then the read range becomes 8, which is half the original 16.

In claims 6 and 11, it is inherent that the expansion value ( $2^d$ ) of the size of said read range  $d$  in Wood et al is calculated by exponential function,  $e=e+1$ . i.e. with  $e=3$ , and read range is 8 as shown in claim 5 above, then  $e=e+1$  becomes  $e=4$ , which has a read range of 16.

The limitations of claims 7-8 and 12-13, such as the start  $S$  or end  $E$  have already been addressed in the rejection of claim 2 and therefore rejected for the same reasons.

#### ***Office Contact Information***

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to William Bangachon whose telephone number is (571)-



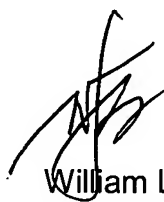
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**272-3065.** The Examiner can normally be reached from Monday through Friday, 9:00 AM to 5:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Brian Zimmerman can be reached on **(571)-272-3059**. The fax phone numbers for the organization where this application or proceeding is assigned is **571-273-8300** for regular and After Final formal communications. The Examiner's fax number is **(571)-273-3065** for informal communications.

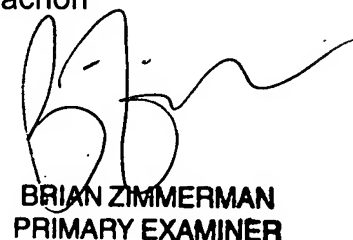
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.



William L Bangachon  
Examiner  
Art Unit 2635

April 16, 2007



BRIAN ZIMMERMAN  
PRIMARY EXAMINER